REMARKS

The present amendment is submitted in response to the Office Action dated August 3, 2005, which set a three-month period for response, making this amendment due by November 3, 2005.

Claims 1-11 are pending in this application.

In the Office Action, claim 1 was rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,944,442 to Donachie, Japanese patent 358031031 ("JP '031"), Japanese patent 402057637 ("JP '637"), or U.S. Patent No. 3,532,560 to Tomioka. Claims 2-5 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Donachie, JP '031, JP '637, or Tomioka. Claims 6-11 were rejected under 35 U.S.C. 103(a) as being unpatentable over Donachie, JP '031, JP '637, or Tomioka, and further in view of ASM handbook teaching.

In the present amendment, claim 1 has been amended to more clearly define the present invention over the cited references. Specifically, claim 1 has been amended to recite further that "a minimum carbon content of the semi-finished article is selected so that a minimum hardness required for use as a roll lead-bearing part or component is provided", as disclosed on page 4, lines 20-22.

The method described in the primary reference to Donachie uses a completely different type of steel than the method of the present invention. The most important property regarding the hardenability of a steel is the carbon content, as this governs the amount of martensitic structure that is formed. The martensitic content of the finished part is important for its hardness and also for the warping that usually occurs.

The carbon content of the steel used by Donachie of less than 0.2 % is much too small to provide the necessary hardness required for use as a roll load bearing part or component. Donachie's object is to provide a steel with an enhanced hardness, which can still be easily formed. Additionally, as disclosed in column 5, beginning at line 52 in Donachie, the steel is subjected to welding after the forming and heating steps.

Both Tomioka and JP '637 disclose methods, in which the part is cold-formed after hardening and not before hardening. This also indicates that the steel disclosed in these two documents would be unsuitable for a roll barrel screw drive, as the rolling action of the rolling elements would here also lead to a cold-forming of the part.

In contrast, the steel proposed by the present invention is characterized by a high hardness, which makes it practically impossible to cold-form the steel after hardening. In the present invention, only a treatment involving grinding is possible after the hardening, which involves additionalexpense.

JP '031 discloses a method which does not use air hardened steel but uses forced cooling.

A main difference between the present invention and the cited art is that the present invention is concerned with manufacturing a highly accurate part from very hard steel. The Applicants respectfully submit that amended claim 1 more clearly implies this feature, by defining that that the minimum carbon content of the semi-finished article provides the necessary hardness for use as a roll lead bearing part or component.

Because none of the references cited in support of the rejection under Section discloses all of the features of claim 1, as argued above, the rejection under Section 102 must be withdrawn. Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. ***Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.***, 221 USPQ 481, 485 (Fed. Cir. 1984).

Likewise, none of these references, also cited in support of the rejection under Section 103, suggests to the practitioner all of the features of claim 1 or that the disclosed methods could be modified in any manner that could lead to the present invention. As such, the rejection under Section 103 also must be withdrawn. When establishing obviousness under Section 103, it is not pertinent whether the prior art device possess the functional characteristics of the claimed invention, if the reference does not describe or suggest its structure. ***In re Mills***, 16 USPQ 2d 1430, 1432-33 (Fed. Cir. 1990).

For the reasons set forth above, the Applicants respectfully submit that claims 1-11 are patentable over the cited art. The Applicants further request withdrawal of the rejections under 35 U.S.C. 102 and 103 and reconsideration of the claims as herein amended.

Should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call in order to discuss appropriate claim language that will place the application into condition for allowance.

Respectfully submitted,

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